

Predictive Factors of Eating Disorders in Dancers

An Honors Thesis (PSYS 499)

by

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Abstract

The purpose of this study was to investigate predictive factors of eating disorders that apply specifically to the environmental influences of dancers. This study surveyed female dance majors from multiple universities on the environmental influences of collegiate dance such as anticipated career, genre, how they use the mirror, how often they use the mirror in class, and how often they compare themselves to others in class. Those factors were then compared to measures that quantify known predictive factors of eating disorders such as Perfectionistic Characteristics, Body Checking Behavior, and Body Image Acceptance. It was hypothesized that pursuit of the ballet genre, as well as pursuit of a performance career would negatively affect participant's scores on Perfectionism, Body Checking, and Body Image Acceptance, thus putting them at higher risk for eating disorder development. Results showed this was not the case. Career and genre were deemed non-significant contributors to the predictive factors measured. However, in exploratory analysis, it was found that body checking scores positively correlated with mirror duration, mirror use, and comparison; and perfectionism positively correlated with mirror use, mirror duration and comparison.

Acknowledgements

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Process Analysis Statement

My capstone explored the mental health of dancers through psychological research. Last semester, I developed a correlational research study on the “Predictive Factors of Eating Disorders in Dancers” through the Psychology department. I completed this study earlier this semester. The purpose of this study was to investigate predictive factors of eating disorders that apply specifically to the environmental influences of dancers. This research surveyed female dance majors from Ball State University and Indiana University.

Initially, I conducted a literature review, encompassing past research on eating disorders (EDs) in general, how they are categorized and diagnosed, and research specifically related to dancers. This research helped me form my own hypotheses regarding factors within dance that breed ED culture. Based on past research, I accumulated a list of things I thought would influence ED culture: genre, anticipated career choice, dress code, mirror use, how often students compare themselves to others and mirror duration. In my survey sent out to students, I asked detailed questions involving these factors, and made certain to ask the teachers, I later interviewed, their thoughts on some of these topics, as well. This insured I had students’ and teachers’ perspectives. In this way, past research influenced the process and final product.

I think the greatest success that derived from this process was a completed, professional-grade research paper. Learning about the process of academic research, while creating my own, felt like a great accomplishment. Because of this accomplishment, I could move forward with submitting it to a peer review journal to be published, or continue research and bulk up participant numbers.

As far as challenges, I experienced greater difficulties getting my study approved by IRB (Institutional Review Board) than I thought I would. Initially, I submitted my application for

review in December, and received edits to make near the end of Christmas break. I made these changes in January, at a time the IRB staff of Ball State was undergoing multiple changes, which slowed down operations. After my third edit, the IRB representative asked me to meet with her to discuss my proposal. However, I was unaware this was not typically done without advisors present. During the meeting, I was told I had to change the title of my experiment from “Mental Health of Collegiate Female Dancers” to include the words “eating disorders”, as well as a few minor changes, or she would not be able to grant me permission to start research. At this point, I was already weeks behind the timeline set by my advisor, so I agreed to make the changes in order to continue my work. After talking to my advisor, who was upset about the entire situation, I learned it was inappropriate for members of the IRB to tell me to change aspects of my study, as they are supposed to be objective reviewers. Because of these changes, the results of my study might have been skewed. Due to the title change, participants were cued that I was looking specifically at EDs, and students may have changed their answers to what they think they should answer to be considered “normal,” instead of answering truthfully.

I think this incident was just a perfect storm of turnover, training, and it being a busy time of year. However, my study was approved and I was able to conduct my research. I dealt with this situation as well as I could have and adapted until I got approved.

Despite a few setbacks, this process allowed me to gain extensive knowledge about eating disorder culture and development and create my own research, which found significant correlations between the dance environment and predictive factors of eating disorders. Based on this work, I was able to write a book as part of my dance capstone for dance educators addressing this topic. The book is entitled “Stopping the Spread of Eating Disorders in the Dance Classroom,” and it is available for purchase on Amazon. I am proud of the work and insights I

was able to make accumulatively between past research, my own insights, other educator's insights, and the feedback from my psychological research. I am glad I was able to take research and actually apply it in a palatable and efficient way that can actually help people and our community. I believe this success occurred because I have been passionate about this topic for years, and have strong scientific theories as well as beliefs which I wanted to share. With consistency and hard work, I was able to pull this all together into a profitable product. Through this book, I am able to reach a much broader audience, including students, teachers, and those not in scientific professions. I feel if research is not applicable to the real world, meaningful work may be done but it will not mean as much or be as useful as it would if more were able to understand it.

Though I am proud of and stand by my research and final product, I do think it could have been more effective. Due to the time constraints caused by not getting approval until late in the process, I feel it was difficult to effectively analyze and comprehend the data. I also I had to hand grade scores from 25 surveys, so it is possible mistakes were made unknowingly. I found SPSS (the software program used to analyze data) was difficult to use. If I had had a better understanding of what goes into analyzing data before writing the survey, I would have limited the answer choices on the survey (because results are better when there are only two or three choices). I had to go in and recode answer choices into two or three category choices after the fact, which took more time and left room for human error.

I think this project has helped me hone my skills of interdisciplinary work. To be able to look at one problem through a quantitative/analytic, artistic, and humanistic standpoint gave me the ability to look at possible solutions from multiple angles. Thinking this way yields the

greatest results and change because original thoughts and ideas can emerge when looking through multiple lenses.

I learned not to panic if things do not unravel the way they are meant to. When I make a detail oriented plan and schedule, I mean to stick to it. However, along with the many strange circumstances we've encountered so far in 2020, I was forced to learn how to overcome and be productive regardless of outside circumstance.

My project contributes to the health and mental attitudes of dancers and educators in the field. I would love to continue this research, and continue analyzing data from the survey conducted. I think getting more participants, fewer options, and more time to score and analyze data, would provide a better chance at generalizable data. To continue this research, I would edit the survey to include less options, and submit a grant to pay participants, which would help get students from other universities involved. I think this would help specifically with my original hypothesis that genre and career choice influenced ED development. In this round of research, I only had two participants focused in ballet, and an uneven number of participants pursuing performance and creation. Because of this, it was difficult to know if these results were showing no significant effect, or if there wasn't enough data on these things to create a result.

Predictive Factors of Eating Disorders in Collegiate Female Dancers

Eating Disorders

Though eating disorders (EDs) only affect approximately 1% of the general population of women, there is a career choice which can increase the likelihood of experiencing an eating disorder by twenty percent (Dunning, 1997). The career choice? A professional dancer. While predictive factors of eating disorders have been investigated in populations of average women, eating disorders among populations of dancers, a population 20% more likely to develop an eating disorders, is a relatively under-researched area. The purpose of this study was to determine environmental and social factors at play that contribute to the prevalence of EDs in this sub-population.

In the most recent addition of the DSM5, there are eight categories of feeding and eating disorders; pica, rumination disorder (RD), avoidant/restrictive food intake disorder (ARFID), anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), other specified feeding or eating disorder (OSFED), and unspecified feeding or eating disorder (UFED) (American Psychiatric Association, 2013). The most researched, specifically in dance culture, is anorexia nervosa, which is extreme restriction or starvation, leaving its host to be at a weight less than 85% of what's expected. The DSM5 has changed the AN criterion to a scale going from severe to mild, as opposed to one size fits all. They have also changed to focus on behavior that purposely limits ability to gain weight, as opposed to physical characteristics that result from the behavior. Pica is an ED that typically involves youth, and is associated with repetitively eating non-nutritious foods. Rumination Disorder involves spitting out food, typically to taste and give

the appearance of eating without calorie consumption. This disorder is difficult to catch unless patient is forthcoming about its existence. Avoidant/restrictive food intake disorder is characterized by limitation that does not stem from distorted body image or weight issues. Bulimia Nervosa is diagnosed by the behavior of purging, or throwing up/using laxatives and other measures to expel food. Binge eating disorder is characterized by restriction followed by mass consumption of food, resulting in extreme guilt. Binge eating disorder and bulimia nervosa tend to overlap in many cases. Other specified feeding or eating disorder and unspecified feeding or eating disorder are blanket diagnoses for disordered attitudes or behaviors about food that do not meet criteria for specific Eds. The only difference between the two is OSFED has more specific information about the disorder, whereas UFED does not have enough information to determine what similarities are present with other disorders. For example, someone with OSFED may have many symptoms of AN, BM, and BED, but not enough symptoms to be categorized into one specific disorder. However, someone with UFED may have a broader range of disordered behaviors that make it difficult to label what is contributing (American Psychiatric Association, 2013).

What goes into the development of an eating disorder? Looking for ways to stop the development of EDs is difficult because the diagnoses are relatively reliant on behaviors (finding internal attitudes much later into diagnoses and treatment). There are hypotheses of predictive behaviors or environmental factors that are more likely to put people at risk. However, it is important to note that the term “predictive factors” are typically generalized in literature to include correlation with any ED, without separating each disorder into its own category. Though perfectionism, body dissatisfaction, early dieting, societal pressure towards thinness, weight control behaviors, etc. predict development of an ED, negative affect and impaired psychosocial

functioning are the only risk factors that predict onset of all EDs mentioned in the DSM five (Stice, Gaum Rohde, and Shaw, 2017). This study examined the correlation between environmental factors of dancers and known predictive measures of factors contributing to the development of any disordered eating psychopathology.

It is unknown whether irregularities in the brain occur before or after the onset of an ED. There are theories EDs could be caused by a dysfunctional hypothalamus and/or endogenous opioids, or lack of serotonin and/or dopamine (Kring, Johnson, Davison, & Neale, 2017). These areas and chemicals regulate appetite, attitudes towards feeling full, and reward pathway activation when eating. These findings are not heavily supported and, again, could either be a predictor or the result of the onset of an ED.

There are theories that sociocultural pressures, as well as tendencies towards perfectionism and the need for control contribute to anorexia (Kring, et. al., 2017). It has also been theorized that body image disturbance, due to any of the factors previously mentioned, is one of the most common clinical features attributed to eating disorders (Garner, Desai, & Desmond). It is hypothesized the largest predictive factor of eating disorders is prevalence of poor body image (Manaf, Saravanan, Zuhrah, 2016). If this is true, it is possible that eating disorders could be prevented if underlying disturbances can be controlled or prevented.

There are two main behavioral manifestations of body image disturbance; body avoidance and body checking (Pellizzer, Tiggemann, Waller, and Wade, 2018). Body avoidance includes behaviors such as avoiding mirrors, being photographed, or wearing tight clothing. Body checking includes behavior such as constantly looking at mirrors or reflective surfaces and

wearing tight clothing and jewelry for the purpose of checking the proportions of one's body.

Body image acceptance is currently known as the strongest predictor of development of an eating disorder (Pellizzer, et al., 2018). Body image acceptance is a measure involving one's flexibility to accept and experience thoughts or feelings about one's body and the way it fluctuates.

Perceived body expectations is another predictive factor noted in past research. Those who consider themselves to be chasing the thin ideal are at higher risk for binge eating and other unhealthy weight control behaviors, however, this is not correlated with anorexia nervosa or disorders involving low body weight (Stice, et. al., 2017). This supports evidence that those with a binge eating disorder typically do not have dangerously low BMI's (Stice, et. al., 2017). This shows those who are average or overweight are more likely to fall victim to the thin ideal, causing unhealthy weight control behaviors in order to fit into their perceived body expectations. However, those who later developed anorexia did not show a correlation of body expectation/ideal thinness as a predictive factor of their disorder (Stice, et. al., 2017).

Body dissatisfaction is another prevalent factor in the development of eating disorders. Similarly to body expectations, body dissatisfaction is positively correlated with the development of binge eating disorders or other disorders involving unhealthy weight controlling behaviors (Stice, et. al., 2017). Body dissatisfaction has an interpersonal relationship with body expectations because if one's body does not match their expectation, they will experience body dissatisfaction, leading to controlling weight behaviors which may likely develop into an ED. Body dysmorphic disorder is characterized by an obsession on a perceived flaw in one's appearance that leads to spending a lot of time staring in reflective surfaces fixated on the flaw, avoidance of reflective surfaces, reassurance seeking, compulsive skin picking, avoiding social

events, and emotional issues (Phillips, 2019). The age of onset is typically before eighteen, and it develops gradually (Bjornsson, Grant, Menard, Emily et. al., 2013). This disorder develops on average younger than other EDs, leading to higher comorbidity with other disorders (Bjornsson, et. al., 2013).

The Dance Environment

The entire career path of dancers, from the extended time spent in front of mirrors, tight dress codes, body expectations of the field, contractual agreements to maintain body expectations, pedagogical practice, etc. set up dancers' mental health for failure before they even begin the behavioral manifestations of eating disorders, let alone the increased difficulty of topping disordered habits after they've developed because their livelihood depends on it. As a dancer, body avoidance is nearly impossible. However, body checking behavior is necessary in our field, meaning it can be hidden or perceived as a social norm in dance communities, which could lead to an increase of eating disorders in this population. When I say necessary, I mean typical. Dancers may train and rehearse up to twelve hours a day in front of a mirror, typically in a dress code requiring skin-tight clothing. They are often measured and asked to maintain their measurements for costume reasons.

Professional dancers tend to have a concrete expectation of what professional dancers in their genre are supposed to look like. In a 2014 study, researchers found that dancers who had higher body-image dissatisfaction, had a concrete expectation of what a dancer was supposed to look like and they felt they didn't fit the mold (Radell, Keneman, Adame, & Cole, 2014). This shows, when thinking of themselves in regards to the body expectations of their field, dancers fall victim to body dysmorphic tendencies. In the previous section, a symptom of body

dysmorphia was increased time spent in front of reflective surfaces. Body dysmorphic disorder is also more common in dancers than the average population (Nascimento, Brazil, and Fontenelle, 2012), and is characterized by the compulsive behavior of checking one's appearance in the mirror due to distress over physical flaws (Kring, et. al., 2017). Similarly to concerns with body-checking behaviors, dancers may look, check, and fixate on perceived flaws, and hide this symptom because it takes place during technique classes or rehearsals.

The internalization of thinness norms in this career has been attributed as a contributor to EDs in dancers; Scoffier-Mériaux, et. al., 2015 found neuroticism to be a “vulnerability factor of self-regulation of eating attitudes in dancers, and internalization of thinness norms is a pathway through which neuroticism affects self-regulation of eating attitudes.” A combination of personality traits and body expectations interact to create unhealthy eating attitudes and behaviors.

To adapt to conditions where their body is under constant critique, the average dancer eats in a consistent deficit in relation to the energy they're outputting (Brown, et al., 2017). Diet behavior is a risk factor of most eating disorders (Kring, et. al., 2017). Between the expectation of dancers' physique, as well as environmental factors, it would seem multiple risk factors for eating disorders (particularly anorexia) are met; including restriction behavior to avoid gaining weight, intense fear of gaining weight, and distorted body image (Kring, et. al., 2017). Dancers list factors contributing to low body satisfaction to the teacher, uniform, and mirrors as the most common issues related (Dantas, Alonso, Sanchez-Miguel, and Sanchez, 2018). I have hypothesized genre to contribute to disordered behavior and ideation, assuming ballet was the strictest in terms of body expectations and lack of flexibility. However, seeing that the number one factor dancers label as contributing to poor body satisfaction is the teacher, I feel

pedagogical practices may truly be the issue, not the genre. The way a person, in a position of power speaks to dancers, especially children growing up in the art, drastically affects the way they think of themselves, their body and its' relationship to their inherent value. Pedagogical practice should be looked at, though it is difficult because each teacher practices differently. Examining personality traits associated with each teacher may help identify what it is about a teacher that makes dancers feel good or poorly about themselves.

Method

Participants

Participants were recruited through student run organizations of dance departments in multiple universities including Ball State University, Butler University, and Indiana University Bloomington. For Ball State, participants were recruited through an email from the presidents of Student Dance Association and Movement Exchange. For Butler and Indiana University Bloomington, Movement Exchange was used for recruitment. An email was sent to the president of these organizations asking them to forward my survey to members of their clubs who are Dance Majors in their University. Subject age varied between 18 and 22, and only females were permitted to participate.

Materials

Self-Made Survey

Participants were given a short survey stating their age, how many years they have been technically trained in dance, the main dance genre in which they will be pursuing professionally, the dress code of that genre, how many physical dance classes they are taking this semester, year in school, anticipated degree, what career choice they are pursuing, their placement/skill level in this genre, how they use the mirror (as a tool for comparison or for body placement), the duration

of time the mirror is used in class, how many times they compare themselves to others in a given class period, if they regularly burn more calories than they consume and whether that is purposeful or not, as well as whether their teachers regularly gave positive or negative feedback, and how the mirror makes them feel. These were the independent variables.

Body Checking Questionnaire

Body checking and avoidance are the two main behavioral manifestations of body image disturbance (Pellizzer, Marika, Waller, Wade, 2018). This measure assessed risk factors associated with eating disorder pathology and “included three subscales that assess checking related to overall appearance, checking of specific body parts, and idiosyncratic checking rituals. Each item is scored on a 5-point Likert-type scale, ranging from 1 = never to 5 = very often” (Reas, Whisenhunt, Netemeyer, & Williamson, 2001). The higher the score, the more body checking behaviors or unhealthy attitudes they have. It shows internal consistency reliability (Cronbach’s $\alpha = .66-.96$) and test retest reliability ($r = .83-.94$) (Calugi et al., 2006).

Multidimensional Perfectionism Scale

This measured the personality trait, perfectionism. The higher the score, the healthier their perfectionist behaviors and attitudes were. The sub-scales included were self-oriented perfectionism which is correlated with greater productivity, other-oriented perfectionism which is correlated with judgmental/critical characteristics, and socially prescribed perfectionism which is associated with anxiety and depression (Hewitt & Flett, 1990).

Body Dissatisfaction Scale Assessment Tool

The visual assessment tool from Mutale, Stiller, Dunn & Larkin’s 2016 was used in this study. This tool had images of the female form from severely underweight to severely overweight. (Mutale, Stiller, Dunn & Larkin, 2016). In Mutale et. al. study, they asked

participants what they thought they looked like, and what they would like to look like. The larger the discrepancy between the two, the more body-dissatisfaction they scored. This showed that body-image disturbances and body dissatisfaction are positively correlated with the development of eating disorders.

Body Image Acceptance and Action Questionnaire

Body image acceptance is considered a protective factor in the development of eating disorders, and is the strongest predictor of disordered eating (Pellizzer, Tiggeman, Waller, & Wade, 2018). This questionnaire was developed to measure “the extent to which an individual exhibits an accepting posture toward negative thoughts and feelings about his or her body shape and/or weight,” where higher scores indicate more acceptance (Sandoz, Wilson, Merwin, and Kellum, 2013). It is a twelve item self-report Likert scale. This scale is positively correlated with other measures of psychopathology of eating disorders, body dissatisfaction, body appreciation, social comparison, BMI, distress tolerance, internalization of the thin ideal, body checking, avoidance, and flexibility (Sandoz et al., 2013). It has shown good internal reliability with a Cronbach’s $\alpha = .91-.95$, and good test-retest reliability ($r = .80-.82$) (Sandoz et al., 2013).

Statistical Analysis

The independent variables explored in this statistical analysis were the genre of dance participants planned to pursue professionally, their anticipated career choice in the field following graduation, how they used the mirror, mirror duration, and how often they compared themselves to others. The dependent variables were their scores on the Body Checking Questionnaire, the Multidimensional Perfectionism Scale, and Body Image Acceptance and Action Questionnaire. A MANOVA was run to determine the relationship between variables.

Results

Preliminary Results

A total of twenty-five female collegiate dancers between the ages of 18 and 22 from Ball State University and Indiana University Bloomington participated. Of the 25 participants, 16 participants were BFA Dance majors, the rest were BA/BS Dance majors. The BFA program is more heavily focused on performance than BA/BS degrees.

Data Cleaning

Those who had not completed 50% of the survey were removed from data analysis. Genre was condensed to 4 categories; 1.) Vernacular jazz, commercial jazz, tap, and musical theatre, 2.) modern, contemporary, improvisation, 3.) ballet, 4.) hip hop/ cultural. Career choice was recoded to two categories; 1.) creation (including choreography, higher education, teaching, and research), 2.) performance (including concert and commercial performance work). Raw data was hand-scored for Multidimensional Perfectionism Scale (including its sub-scales of self-oriented, other oriented, and socially prescribed) Body Checking (including its sub-scales of specific body-parts, idiosyncratic checking, overall appearance, and total body checking) and the Body Image Acceptance and Action Questionnaire (BIAAQ). These total scores were then input to SPSS for data analysis, including a MANOVA.

Hypothesis Tests

The initial hypothesis was career choice or genre choice would negatively impact participant's Perfectionism, Body Checking, and BIAAQ scores; which are known predictive factors of eating disorders. It was hypothesized that performance career choices would score worse than creation career choices (such as teaching, choreographing, owning a studio, etc), meaning those pursuing performance careers would be at higher risk for development of eating

disorders. It was also hypothesized that those pursuing a career in ballet would score poorly compared to those pursuing other genres. A MANOVA was conducted with genre as the fixed variable and perfectionism, body checking, and BIAAQ scores as the independent measures. Another MANOVA was conducted with career choice as the fixed variable and perfectionism, body checking, and BIAAQ scores as the independent measures. The means from each dependent variable did not change based on genre or career.

For the BIAAQ, those who had a focus in Jazz (vernacular jazz, musical theatre, commercial jazz, and tap) had a mean of 110.7143 with a standard deviation of 42.488. Higher scores indicate better acceptance, with the highest possible score of 203. Those who had a focus in modern (codified modern, contemporary, and improvisation) had a mean of 120.1 with a standard deviation of 43.76. Those who had a focus in ballet scored a mean of 142.5 with a standard deviation of 4.9497. Results were non-significant; $F(1,1755.677)=0.424, p=0.662$.

Those who chose a career in creation had a mean of 119.09 with a standard deviation of 38.58 on the BIAAQ. Those who chose a career choice in performance scored a mean of 63.21 with a standard deviation of 45.983. A MANOVA showed $F(1,17)=0.455, p=0.509$.

For the Multidimensional Perfectionism Scale, the higher the score, the healthier the participant's perfectionistic attitudes and behaviors were. According to the creator of the Multidimensional Perfectionism Scale, Hewitt and Flett, having high self-oriented perfectionism was often associated with productivity and success, other oriented perfectionism was associated with issues dealing with other people because they lived under the assumption that others are judging them, and having high socially prescribed perfectionism was associated with anxiety, depression and suicide. Those who had a focus on jazz scored a mean of 68.57 in Self Oriented Perfectionism, 73.2857 in Other Oriented Perfectionism, and 65.2857 in Socially Prescribed

Perfectionism. Those with a focus in modern had a mean of 66 Self Oriented, 69.8 in Other Oriented, and 60.6 in Socially Prescribed. Those with a focus in ballet had a mean score of 73 Self Oriented, 75 Other Oriented, and 73 Socially Prescribed. Genre had an $F(2,19)= 0.502$, $p= 0.614$ when tests of between-subjects effects was run against Perfectionism Self-Oriented. Genre results showed $F(2,19)= 0.429$, $p= 0.659$ compared to Perfectionism Other-Oriented. Genre had an $F(2,19)= 0.982$, $p= 0.396$ when run against Perfectionism Socially Prescribed.

Those who were pursuing a career choice of creation had a mean score of 68.45 for self-oriented, 72.09 for other oriented, and 64.63 for socially prescribed. Those who were pursuing a career of performance scored a mean of 66.625 for self-oriented, 71 for other oriented, and 62.25 for socially prescribed. Career choice was insignificant, with $F(1,17)=0.174$, $p=0.682$ for Perfectionism Self Oriented; an $F(1,17)= 0.632$, $p= 0.804$ for Perfectionism Other Oriented, and $F(1,17)= 0.173$, $p=0.683$ for Socially Prescribed Perfectionism.

For Body Checking, the higher the score, the more body-checking behaviors the participant adhered to. There were three sub-scales; body checking related to overall appearance, checking of specific body parts, and idiosyncratic checking rituals. The highest possible score for overall appearance was 50, specific body parts was 40, and idiosyncratic rituals was 25. Those who had a focus in jazz scored an average of 19.86 on specific body parts, 29.11 on overall appearance, and 8.22 on idiosyncratic rituals. Those who had a focus in modern scored a mean of 19.83 in specific body parts, 31.42 in overall appearance and 10.5 in idiosyncratic rituals. Those with a focus in ballet scored a mean of 21 in specific body parts, 28.67 in overall appearance and 8 in idiosyncratic rituals. Genre was found to be insignificant, with an $f(2,19)= 0.06$, $p= 0.942$ in specific body parts, an $f(2,19) 0.061$, $p= 0.941$ in overall appearance, an $f(2,19)=0.504$, $p=0.612$ for idiosyncratic rituals, and a body checking total $f(2,19)=0.022$, $p= 0.978$.

Those who were pursuing a career of creation had a mean score of 20.3 for specific body parts, 30.69 for overall appearance, 9.25 for idiosyncratic rituals, and 59.31 overall body checking. Those who were pursuing a career of performance scored a mean of 18.67 for specific body parts, 29.556 for overall appearance, 9 for idiosyncratic rituals, and 57.44 for overall body checking. Career had an $f(1,19)=0.0121$, $p=0.995$ for specific body parts, an $f(1,19)=0$, $p=0.995$ for overall appearance, an $f(1,19)=0.068$, $p=0.797$ for idiosyncratic rituals, and a body checking total $f(1,19)=0$, $p=0.983$.

The means from each dependent variable did not change significantly compared to career choice. Genre and career choice did not negatively impact participant's perfectionism, body checking, or BIAAQ scores. Figure 7 shows the means and standard deviations.

Figure7. Means and Standard Deviations of Environmental Factors to Predictive Factors

Independent Variables	Perfect ionism Self Oriented	Perfect ionism Other Oriented	Perfect ionism Socially Prescribed	BIAA Q	Body Checking Total	Body Chec king Speci fic Body Parts	Body Checking Overall Appearance	Body Checking Idiosyncr atic Ritual
Performance Career	M=66.6 25 SD=9.5 4594	M=71 SD=11. 17395	M=62.2 5 SD=12. 11552	M= 63.21 SD=4 5.98	M=57.44, SD=20.18	M=2 0.31, SD= 9.55	M=29.56, SD= 7.97	M=9, SD= 3.97

Creation Career	M=68.4 545 SD=9.3 6337	M=72.0 9 SD=7.7 6472	M=64.6 364 SD=12. 52416	M=11 9.09 SD= 38.58		M=2 0.31, SD= 9.55	M=30.69, SD= 10.33	M=9.25, SD=5.67
Genre-Ballet	M=73, SD=.0	M=75, SD=0	M=73, SD=0	M=14 2.5 SD= 4.9497	M=57, SD= 9.83	M=2 0.25, SD= 2.21	M=29.5, SD=6.8	M=7.25, SD=2.63
Genre-Jazz	M=68.5 7 SD=8.6 575	M=73.2 857 SD=8.4 5999	M= 65.2857 SD=8.2 8	M= 110.71 43 SD= 42.488		M=1 9.33, SD= 8.97	M=29.11, SD=8	M=8.22, SD=3..77
Genre-Moder n	M=66, SD= 10.488	M=69.8 , SD=10. 422	M=60.6 , SD=14. 62266	M= 120.1 SD= 43.76	M=60.5, SD= 9.83	M=1 9.83, SD= 11.61	M=31.42, SD=11.41	M=10.5, SD= 6.27
\$Mirro r Durati on- Never				M=17 8	M= 37, SD= 1.41	M=1 3, SD= 7.07	M=25, SD=4.24	M=6.5, SD=2.12

Mirror								
Durati				M=		M=1		
on-		M=69.8	M=57.2	136.2		7,		
Someti	M=63.4	SD=4.9	SD=8.5	SD=2	M=52.8,	SD=	M=27,	M=8.8,
mes	SD 2.88	6991	26	5.75	SD= 8.6	4.64	SD= 3.4	SD= 2.49
Mirror				M=10				
Durati				7.2		M=1		
on-	M=68.4	M=71.2	M=69.4	SD=		6.13,		
Often	SD=10.	SD=9.9	SD=5.8	48.478	M=51.75,	SD=	M=28.13,	M=7.5,
	26	599	5662	86	SD=8.6	3.14	SD=5.94	SD=2.45
Mirror								
Durati	M=71.6		M=67.1	M=10		M=2		
on-	25	M=75.6	25	8.25		5.3,		
Alway	SD=9.7	25	SD=12.	SD=3	M=71.4,	SD=	M=34.7,S	M=11.2,
s	8	SD=7.7	63	9.6375	SD=31.35	12.45	D=12.75	SD=7.07
Mirror	M=70.4	M=75.1	M=67.1	M=98.		M=2		
Use-	286	4	429	8571		7.28,		
Compa	SD=10.	SD=8.6	SD=11.	SD=3	M=79.57,	SD=	M=38.57,	M=13.71,
rison	737	2996	922	7.427	SD=34.44	14.76	SD=13.34	SD=7.25
Mirror	M=67.1	M=71.2	M=63.6	M=12		M=1		
Use-	818	727	364	6.454		7.4,		
Placem	SD=7.7	SD=7.2	SD=10.	SD=3	M=52.73,	SD=	M=27.73,	M=7.47,
ent	1775	2621	37567	7.882	SD=8.44	3.7	SD=4.7	SD=2.5

Comparison-1-3 times	M=60.8 SD=5.0 6952	M=62.6 SD=7.7 58879	M=56.4 SD=11.5 58879	M=14 8.2 SD=2 5.263	M=48.22, SD=7.22	M=1 5.44, SD=3.68	M=26.33, SD=4.8	M=6.22, SD=1.3
Comparison-4-7 times	M=64.2 SD=5.0 6.652	M=71.5 SD=5.7 4456	M=60 SD=13.5 44123	M=10 5.25 SD=5 7.483	M=54.75, SD=11.32	M=1 7, SD=3.7	M=28.75, SD=6.55	M=0, SD=1.3
Comparison-8-10 times	M=72.5 SD=11.5 37039	M=76 SD=8.7 9394	M=69.1 SD=12.5 402	M=11 5 SD=3 2.517	M=59.78, SD=24.46	M=1 9.78, SD=8.35	M=31, SD=9.57	M=10.67, SD=6.22
Comparison-11+ times	M=72.3 SD=1.1 547	M=76.6 SD=5.68624	M=67.6 SD=4.72582	M=98 SD=4 06119	M=91.67, SD=38.37	M=3 6, SD=14.9	M=42, SD=15.87	M=13.67, SD=7.57

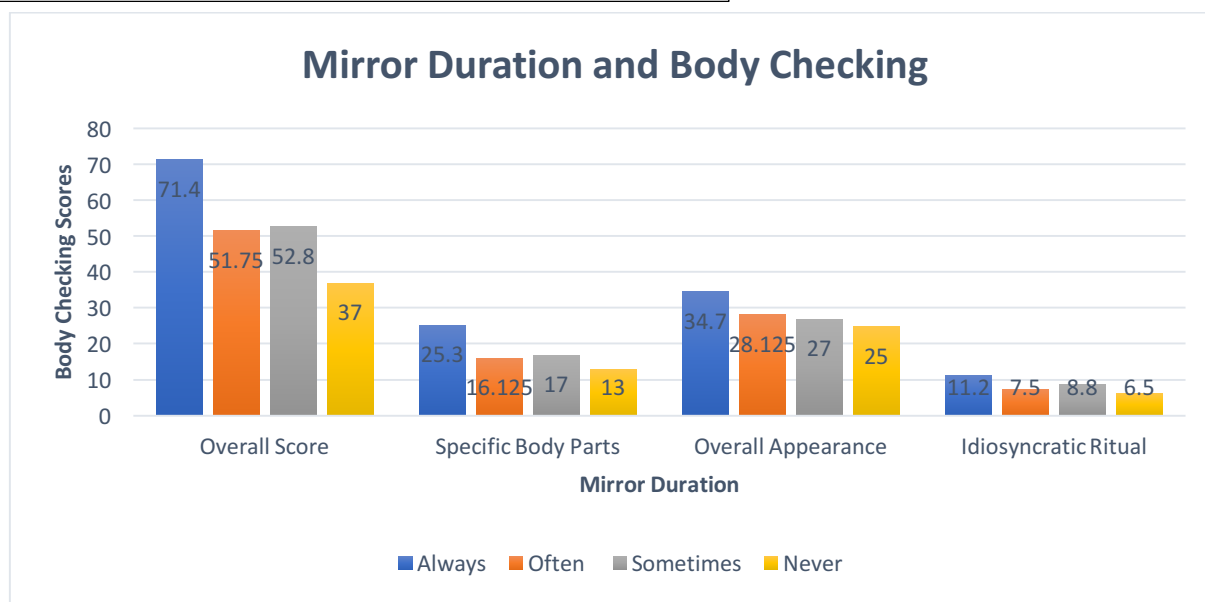
Exploratory Findings

Other data was collected in the survey such as how participants used the mirror in class (either as a method of comparison or a tool to determine placement issues), how often the mirror was used in their preferred genre, how often participants compared themselves to others in one dance class, how competitive they perceived their genre of focus is professionally, what they

thought their body looks like compared to other dancers, and what they thought their body looks like in comparison to the average population. A MANOVA was run between each of these independent variables and the three dependent variables discussed previously.

Body Checking and Mirror Duration had a direct relationship. As the duration of using the mirror increased, so did body checking scores, and this applies for all sub-scales. For example, those who reported never using the mirror during class scored a mean of 13 on Body Checking Specific Body Parts, while those who reported always using the mirror scored a mean of 25.3. Tests of within-subjects effects Sphericity Assumed shows an $F(9,63) = 2.335, p = 0.024$. As illustrated by figure 1, those who reported always using the mirror scored significantly higher body checking behavior.

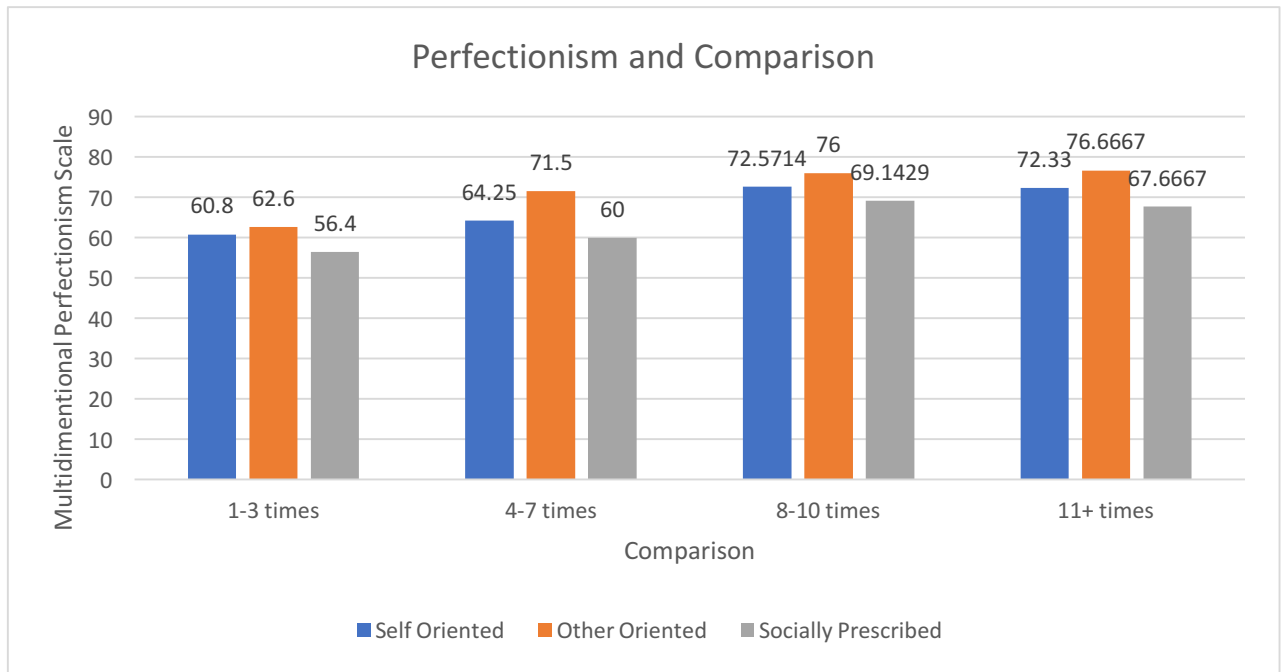
Figure 1. Means of Body Checking Scores compared to Mirror Duration Reports



Comparison and perfectionism proved to have a direct relationship. This result applied to the “other-oriented” sub-scale. Those who compared themselves 1-3 times during one class scored a mean of 62.6 on other-oriented perfectionism, while those who compared themselves 11+ times forced a mean of 76.6667. A MANOVA revealed the other-oriented subscale had an

$F(3,15)=3.57, p=0.04$. As illustrated by figure 2, those who reported comparing themselves to others 11 times during a class reported higher levels of perfectionism than those who compared themselves 1-3 times.

Figure 2. Mean scores of Perfectionism related to comparison



Mirror Use and Body Checking also showed a direct relationship. Those who used the mirror as a tool to determine placement issues scored a mean of 17.4 on specific body parts, 27.28 on overall appearance, 7.4667 on idiosyncratic rituals, and 52.73 on overall body checking total while those who used the mirror as a method of comparison scored a mean of 27.2857 specific body parts, 38.57 overall appearance, 13.71 idiosyncratic rituals, and 79.57 overall score. A test of within-subjects effects greenhouse-guesser showed $f(2.54,27.944)=5.774, p=0.005$, and a test of between-subjects effects showed $f(2,22)=6.014, p=0.008$. As illustrated by figure 3, those who reported using the mirror as a tool for placement reported significantly lower body checking scores than those who used the mirror as a method of comparison.

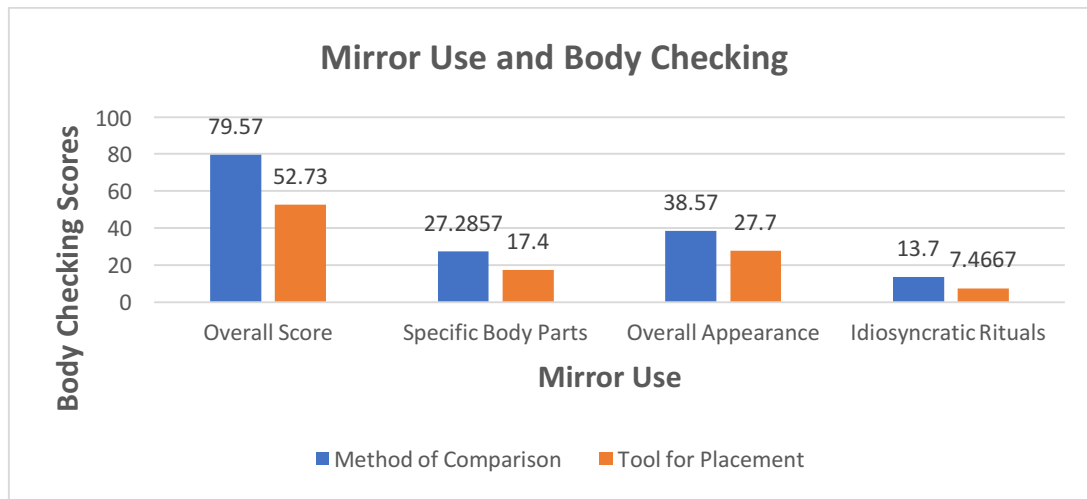
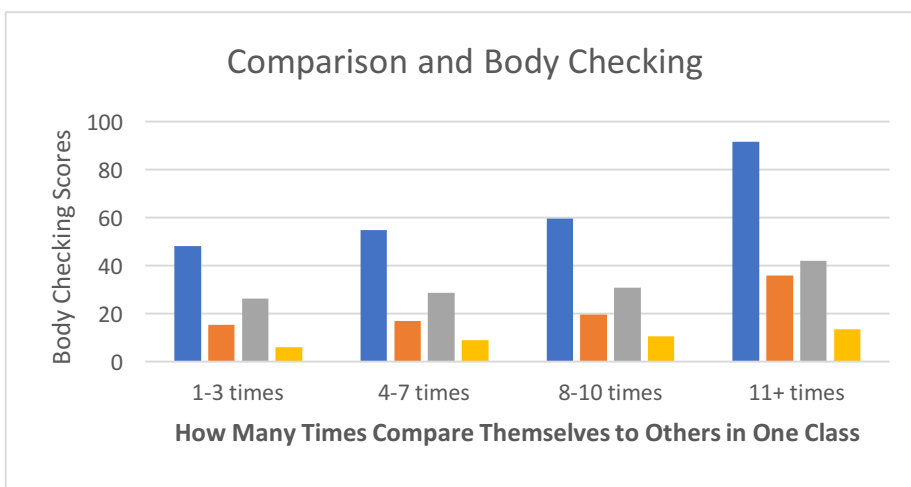


Figure 3. Body Checking scores compared to how participants use the mirror

Comparison and body checking showed a direct relationship, the more often a participant compared themselves to others in a class, the higher they scored on the Body Checking scale. Those who reported comparing themselves 1-3 times during the duration of one class had a mean of 48.22 on Body Checking Total Scores, while those who reported comparing themselves to others 11+ times had a mean of 91.6667. The Quadratic test of within-subjects contrasts showed an $f(3,21)=5.574$, $p=0.006$. As illustrated by figure 4, those who reported comparing themselves



to others 11+ times also reported higher body checking behavior than those who compared themselves less than 11 times.

Figure 4. Body Checking Scores compared to how often participants compare themselves to other in one class

Mirror use and Other-Oriented Perfectionism had a direct relationship. Those who used the mirror as a method of comparison had a mean score of 75.1429 with a standard deviation of 8.62996, while those who used the mirror as a tool to determine placement issues had a mean score of 71.2727 with a standard deviation of 7.22621. Meaning, those who used the mirror as a method of comparison show higher traits of perfectionism, stemming from outside sources. $F(2,16)=4.238$, $p=0.033$. As illustrated in figure 5, those who used the mirror as a way to compare themselves to others scored significantly higher Other-Oriented Perfectionism Scores.

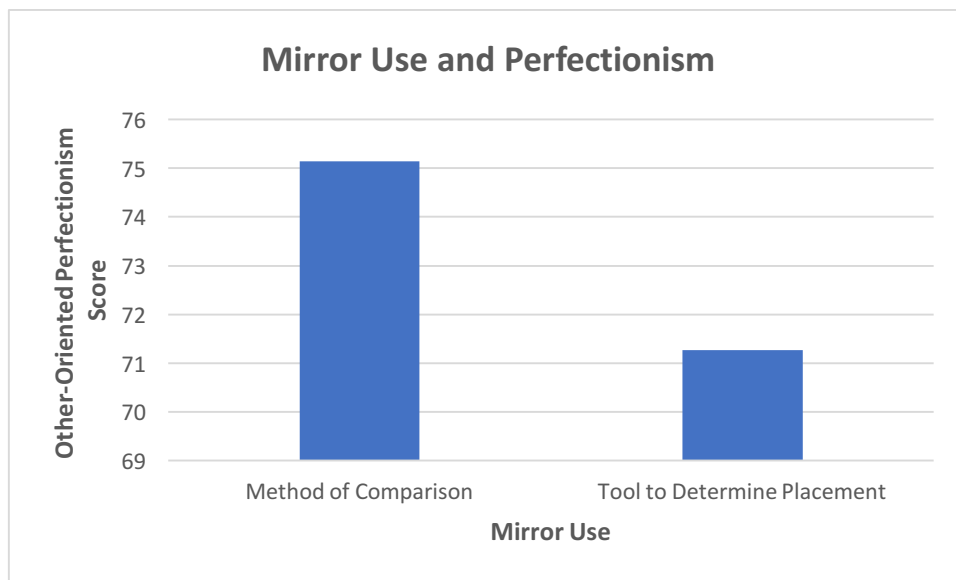
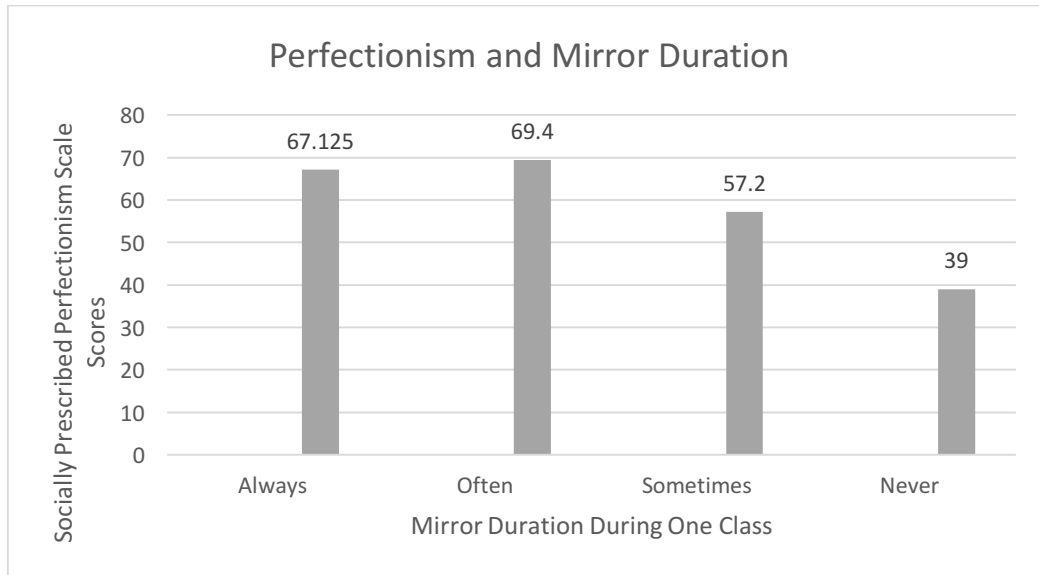


Figure 5. Perfectionism means compares to how participants use the mirror

The Socially Prescribed Subscale of Perfectionism also showed a direct relationship with mirror duration. Generally, the more participants used the mirror, the higher they scored on perfectionism. Those who reported always using the mirror scored a mean of 67.125 with a standard deviation of 12.63145 on Socially Prescribed Perfectionism, while those who reported never using the mirror scored an average of 39. A MANOVA showed $F(3,15)=3.487$, $p=0.042$.

Figure 8, Socially Prescribed Perfectionism and Mirror Duration



Another interesting finding was the difference between body types participants chose of themselves when compared to the average population and other dancers. The average body type compared to the average population was 3, on a scale from 1-10 (underweight to overweight). The average body type compared to other dancers in their field was 5. As illustrated by figure 6, the context of where participants' bodies were being judged proved to be enough to change the mean score by two body types, reporting a heavier-set body when comparing themselves to others in the dance profession and slightly underweight when comparing themselves to the average population of women.

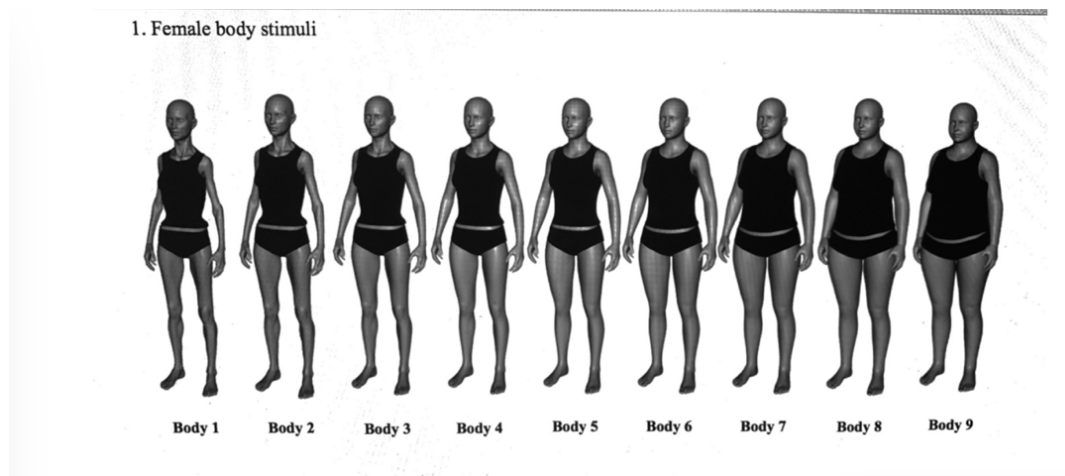


Figure 6. Body Types

Discussion

Prior research has demonstrated perfectionistic characteristics, body checking behavior, and low body-image acceptance to be positively correlated to eating disorder pathology. It has also been shown, dancers were 20% more likely to develop eating disorders than the average population of women (Dunning, 1997). Though past research has studied eating disorders as and mental health implications of dancers as separate entities, there is not research correlating multiple environmental factors of dancers specifically to predictive factors of eating disorders. Body-image, self-esteem, as well as dress code and mirror use has been studied with mixed results, varying by age and skill level (Pollatou, Bakali, Theodorakis & Goudas 2010). The purpose of this study was to correlate specific environmental factors of dancers' lifestyle to perfectionism, body checking behavior, and low body-image acceptance (known predictive factors of eating disorder development).

The hypothesis that genre and career would have negative impacts on dancers' chances of developing an eating disorder was not supported. However, exploratory findings showed positively relationships between body checking and mirror use, mirror duration, and comparison;

and a direct relationship between perfectionism and mirror use, mirror duration and comparison. The more often participants compared themselves to others in the duration of one class, the higher they scored on the Body Checking measure. This means those who compare themselves to others often tend to have more body checking habits. The more participants compared themselves to others during one class, the more perfectionistic traits they reported. The more participants used the mirror, the more perfectionistic traits they showed. Those who reported using the mirror as a way to compare themselves to others showed higher perfectionistic traits.

The way participants used the mirror influenced body checking. Participants who reported using the mirror as a means to compare themselves to others reported performing more body checking behaviors than those who used the mirror strictly for placement issues. Similarly, the more often mirrors were used in class, the more participants reported participating in body checking behaviors.

Implications

These results reflect the way students used the mirror, how often they compared themselves to others, and how long the mirror was used in class negatively impacted student's mental health. This supports the reason that dancers were at a higher risk for developing eating disorders may not be related to external environmental influences of dance, but how they mentally treated themselves when exposed to environmental influences such as the mirror and associated expectations such as dress code, body aesthetics, etc. These results could influence a teacher's pedagogical practice; keeping in mind the duration of time the mirror is used matters, teaching students to use the mirror only as a tool for placement and self-correction not comparison is important, and to think twice before encouraging students to compare themselves

to others. If these issues are addressed, it could be possible to reduce students' risk factors for ED development.

Limitations

Recruitment was more difficult than anticipated. Originally, the name of the survey going to students was "Mental Health of Collegiate Female Dancers, so as to generalize the disorders being investigated to dissuade participants from altering their answers to avoid being categorized as at risk for an eating disorder. IRB found this to be deception, and asked the title be changed to "Predictive Factors of Eating Disorders in Collegiate Female Dancers." This posed a few challenges, the first being fewer students being interested in participating for fear of being labeled or categorized as at risk for an eating disorder. Another issue this created was the honesty of participants. Because participants knew eating disorder pathology was being studied specifically, it is very possible they answered in a way to reduce suspicion or answered in ways they thought they should, instead of answering the reflection of their behaviors and attitudes honestly.

In terms of recruitment to other schools, it would have been helpful to apply for a grant to pay participants for their time, due to the survey taking 20-30 minutes. Paying participants would have increased participation, especially at other schools where the population had no incentive to participate. Students at Ball State University were willing and eager to participate in this study because they know me and they wanted to support my capstone. Those at other schools had no motivation to give their time for this research.

Another limitation was time. The process of getting approval from IRB took three months. Approval was granted two weeks before spring break, giving three weeks total of data collection in order to stay on timeline for final product and presentation at Ball State's Student

Symposium. More time for data collection and data analysis would have led to more participation and clearer results.

Future Research

Future research should increase sample size and limit the questions being asked to include independent variables such as genre, career choice, dress code, mirror duration, mirror use, and comparison, but broaden the dependent variables to including a eating disorders diagnoses test. This way, environmental and mental processes of dancers could be correlated to EDs on a scale of severity.

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Appendix

Predictive Factors of Eating Disorders in Collegiate Female Dancers Survey

Start of Block: Default Question Block

Q299 Predictive Factors of Eating Disorders in Collegiate Female Dancers IRBNet Number: 1524793-1 **Study Purpose and Rationale** The purpose of this research project is to explore the hypothesis that there are environmental and social factors specific to dancers which positively correlate to known predictive factors of eating disorders.

Inclusion/Exclusion Criteria To be eligible to participate in this study, you must be 18 years or older, be majoring or minoring in dance in college, and plan on pursuing dance professionally in some capacity. **Participation Procedures and Duration** For this project, you will be asked to complete a series of questionnaires about your experience with dance throughout time, as well as personal habits. This should take about 15-20 minutes. **Data Confidentiality or Anonymity** All data will be maintained as anonymous and no identifying information such as names will appear in any publication or presentation of the data. **Storage of Data** Paper data will be stored in a secure file on the primary investigator's computer indefinitely. Only members of the research team will have access to the data. **Benefits** There are no direct benefits to participating in this study. **Risks or Discomforts** The only anticipated risk from participating in this study is that you may not feel comfortable answering some of the questions. You may choose not to answer any question that makes you uncomfortable and you may quit the study at any time. **Voluntary Participation** Your participation in this study is completely voluntary and you are free to withdraw your permission at anytime for any reason without penalty or prejudice from the investigator. **IRB Contact Information** For one's rights as a research subject, you may contact the following: Office of Research Integrity, Ball State University, Muncie, IN 47306, (765) 285-5070, irbhelp@bsu.edu. **Researcher Contact Information**

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Psychology

Muncie, IN 47306

☐ I have read and understand the above consent form, and consent (1)

☐ I do not consent and do not want to participate in this study (2)

Skip To: End of Survey If Predictive Factors of Eating Disorders in Collegiate Female Dancers IRBNet Number: 1524793-1 S... = I do not consent and do not want to participate in this study

Q19 Age

Skip To: End of Survey If Condition: Age Is Less Than 18. Skip To: End of Survey.

Q5 Sex

☐ Male (1)

☐ Female (2)

Q6 Anticipated Degree

- ☐ BFA Dance
- ☐ BA Dance
- ☐ BS Dance
- ☐ Other: Please Explain _____

Q7 Year in School

- ☐ Freshman (1)
- ☐ Sophomore (2)
- ☐ Junior (3)
- ☐ Senior (4)
- ☐ Super Senior (5)

Q8 How many years have you been formally/technically trained in dance?

- ☐ 1-4 years
- ☐ 5-8 years
- ☐ 9-12 years
- ☐ 13 + years

Q9 How many physical dance classes are you taking this semester

- ☐ 1-3
- ☐ 4-7
- ☐ 8+

Q10 Are you pursuing dance professionally?

☐ Yes

☐ No: Please Explain _____

Q11 What are your career aspirations with dance? Select all that apply

☐ Choreography (creation)

☐ Performance in a Company (Performance)

☐ Higher Education (Creation)

☐ Research (Creation)

☐ Performance in Commercial Work (Performance)

☐ Other: Please Explain _____

☐ Teaching (creation)

Q12 What genre is your MAIN focus

☐ Vernacular Jazz (1)

☐ Commercial Jazz (1)

☐ Modern (Graham, Dunham, Horton, etc.) (2)

☐ Contemporary (2)

☐ Ballet (3)

☐ Tap (4)

☐ Hip-Hop (1)

☐ Musical Theatre (1)

☐ Cultural (4)

☐ Other: Please Explain _____

Q13 What is your current placement in this genre

☐ 1

☐ 2

☐ 3

☐ 4

☐ Don't have a placement

☐ My institution does placements differently: Please Explain _____

Q14 What is the highest placement available in this genre in your institution?

☐ 1

☐ 2

☐ 3

☐ 4

☐ Other: Please Explain _____

Q15 Is there an expected dress code for this genre? Select all that apply

☐ Tights (1)

☐ Leotards (2)

☐ Leggings (3)

☐ Loose shirts (4)

☐ Loose pants (5)

☐ Sports bra only (6)

☐ Spanks/Booty shorts (7)

☐ Anything as long as it's tight (8)

☐ Anything as long as it's loose (9)

☐ There is no dress code, I can wear whatever I want (10)

Q16 What are the body expectations of this genre? Select all that apply

- ☐ Slender/Skinny (1)
- ☐ Tall (2)
- ☐ Curvy (3)
- ☐ Short (4)
- ☐ Muscular (5)
- ☐ Any body type is acceptable (6)
- ☐ Other: Explain (7) _____

Q17 What is the pedagogical approach of this genre/ What does your teacher emphasize in class

- ☐ Positivity regarding your success and accomplishments (1)
- ☐ Negativity regarding how far you need to go to “make it” professionally (2)
- ☐ Other: Explain (3) _____

Q20 What is the overall theme of the notes you get during class in this genre?

- ☐ External Concerns (ex: body type of genre) (1)
- ☐ Internal Concerns (ex: where the movement initiates) (2)
- ☐ Body Placement (3)

Q21 Generally, how often is the mirror used in class for this genre?

- ☐ Always (1)
- ☐ Often (About half the time) (2)
- ☐ Sometimes (3)
- ☐ Never (4)

Q22 How do you most often use the mirror in class for this genre?

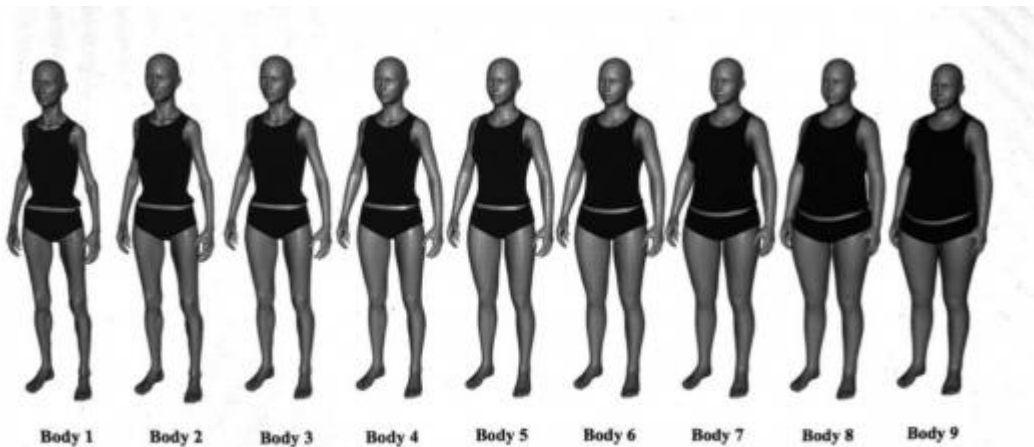
- ☐ As a tool to determine placement issues (1)
- ☐ As a method of comparison (2)
- ☐ Other: Explain (3) _____

Q47 How does use of the mirror during class make you feel?

Q48 How competitive do you believe this genre to be professionally?

- ☐ Very Competitive (1)
- ☐ Somewhat Competitive (2)
- ☐ Not Competitive (3)

Q33



Q34 Which picture would you use to describe your body compared to others in the profession you are pursuing? (According to the image above

- ☐ Body 1
- ☐ Body 2
- ☐ Body 3
- ☐ Body 4
- ☐ Body 5
- ☐ Body 6
- ☐ Body 7
- ☐ Body 8
- ☐ Body 9

Q35 Which picture would you use to describe your body compared to the average population

- ☐ Body 1
- ☐ Body 2
- ☐ Body 3
- ☐ Body 4
- ☐ Body 5
- ☐ Body 6
- ☐ Body 7
- ☐ Body 8
- ☐ Body 9

Q36 In the duration of one class, on average, how often do you compare yourself to others?

- ☐ 1-3 times (1)
- ☐ 4-7 times (2)
- ☐ 8-10 times (3)
- ☐ 11+ times (4)

Q37 Do you count calories consumed?

- ☐ Yes (1)
- ☐ No (2)

Q38 Do you count micro/macronutrients

- ☐ Yes (1)
- ☐ No (2)

Q43

Do you base your exercise off of the discrepancy between how many calories consumed to how many you've burned?

- ☐ Yes (1)
- ☐ No (2)

Q39 Do you regularly burn more calories than you consume

- ☐ Yes (1)
- ☐ I'm not sure (2)
- ☐ No (3)

Q42 If yes, why

Q44 On average, how many hours a day do you exercise outside of dance classes

☐ 0

☐ 1-2

☐ 3-5

☐ 5+

Q74 Why do you exercise in addition to dance classes?

Q75 Do you feel guilt after eating?

☐ Yes (1)

☐ Sometimes (2)

☐ No (3)

Q76 If yes or sometimes, when do you feel guilty after eating?

Q77 For the following questions, click the number which best describes how often you engage in these behaviors at the present time.

I check to see if my thighs spread when I'm sitting down

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q78 I pinch my stomach to measure fatness

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q79 I have special clothes which I try on to make sure they still fit

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q80 I check the diameter of my wrist to make sure it's the same size as before

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q81 I check my reflection in glass doors or car windows to see how I look

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q82 I pinch my upper arms to measure fatness

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q83 I touch underneath my chin to make sure I don't have a "double chin"

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q84 I look at others to see how my body size compares to their body size

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q85 I rub (or touch) my thighs while sitting to check for fatness

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q86 I check the diameter of my legs to make sure they're the same size as before

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q87 I ask others about their weight or clothing size so I can compare my own weight/size

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q88 I check to see how my bottom looks in the mirror

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q89 I practice sitting and standing in various positions to see how I would look in each position

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q90 I check to see if my thighs rub together

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q91 I try to elicit comments from others about how fat I am

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q92 I check to see if my fat jiggles

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q93 I suck in my gut to see what it is like when my stomach is completely flat

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q94 I check to make sure my rings fit the same way as before

- ☐ 1 (never)
- ☐ 2 (rarely)
- ☐ 3 (sometimes)
- ☐ 4 (often)
- ☐ 5 (very often)
- ☐ 6 (always)

Q95 I look to see if I have cellulite on my thighs when I am sitting

- ☐ 1 (never)
- ☐ 2 (rarely)

☐ 3 (sometimes)

☐ 4 (often)

☐ 5 (very often)

☐ 6 (always)

Q96 I lie down on the floor to see if I can feel my bones touch the floor

☐ 1 (never)

☐ 2 (rarely)

☐ 3 (sometimes)

☐ 4 (often)

☐ 5 (very often)

☐ 6 (always)

Q97 I pull my clothes as tightly as possible around myself to see how I look

☐ 1 (never)

☐ 2 (rarely)

☐ 3 (sometimes)

☐ 4 (often)

☐ 5 (very often)

☐ 6 (always)

Q98 I compare myself to models on TV or in magazines

☐ 1 (never)

☐ 2 (rarely)

☐ 3 (sometimes)

☐ 4 (often)

☐ 5 (very often)

☐ 6 (always)

Q99 I pinch my cheeks to measure fatness

☐ 1 (never)

☐ 2 (rarely)

☐ 3 (sometimes)

☐ 4 (often)

☐ 5 (very often)

☐ 6 (always) *Page Break*

Q147 For the following questions, read each item and decide whether you agree or disagree and to what extent.

When I am working on something, I cannot relax until it's perfect

☐ Strongly agree (7)

☐ Agree (6)

☐ Somewhat agree (5)

☐ Neither agree nor disagree (4)

☐ Somewhat disagree (3)

☐ Disagree (2)

☐ Strongly disagree (1)

Q148 I am not likely to criticize someone for giving up too easily

- ☐ Strongly agree (7)
- ☐ Agree (6)
- ☐ Somewhat agree (5)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (3)
- ☐ Disagree (2)
- ☐ Strongly disagree (1)

Q149 I am not likely to criticize someone for giving up too early

- ☐ Strongly agree (7)
- ☐ Agree (6)
- ☐ Somewhat agree (5)
- ☐ Neither agree nor disagree (4)
- ☐ Somewhat disagree (3)
- ☐ Disagree (2)
- ☐ Strongly disagree (1)

Q150 It is not important that people I am close to are successful

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree

☐ 1 Strongly disagree

Q151 I seldom criticize my friends for accepting second best

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q152 I find it difficult to meet others' expectations of me

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q153 One of my goals is to be perfect in everything I do

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q154 Everything that others do must be of top-notch quality

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q155 I never aim for perfection on my work

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q156 Those around me readily accept that I can make mistakes too

☐ 7 Strongly agree

☐ 6 Agree

- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q157 It doesn't matter when someone close to me does not do their absolute best

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 strongly disagree

Q158 The better I do, the better I am expected to do

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q159 I seldom feel the need to be perfect

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q160 Anything that I do that is less than excellent will be seen as poor work by those around me

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q161 I strive to be as perfect as I can be

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree

☐ 1 Strongly disagree

Q162 It is very important that I am perfect in everything I attempt

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 strongly disagree

Q163 I have high expectations for the people who are important to me

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q164 I strive to be the best at everything I do

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 strongly disagree

Q165 The people around me expect me to succeed at everything I do

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q166 I do not have very high standards for those around me

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q167 I demand nothing less than perfection of myself

☐ 7 Strongly agree

☐ 6 Agree

- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q168 Others will like me even if I don't excel at everything

- ☐ 7 Strongly agree
- ☐ 6 agree
- ☐ 5 somewhat agree
- ☐ 4 neither agree nor disagree
- ☐ 3 somewhat disagree
- ☐ 2 disagree
- ☐ 1 strongly disagree

Q169 I can't be bothered with people who won't strive to better themselves

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 strongly disagree

Q170 It makes me uneasy to see an error in my work

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q171 I do not expect a lot from my friends

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q172 Success means that I must work even harder to please others

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree

☐ 1 Strongly disagree

Q173 If I ask someone to do something, I expect it to be done flawlessly

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q174 I cannot stand to see people close to me make mistakes

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q175 I am perfectionist in setting my goals

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q176 The people who matter to me should never let me down

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q177 Others think I am okay, even when I don't succeed

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q178 I feel that people are too demanding of me

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q179 I must work to my full potential at all times

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q180 Although they may not say it, other people get very upset with me when I slip up

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree

☐ 1 Strongly disagree

Q181 I do not have to be the best at whatever I am doing

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q182 My family expects me to be perfect

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q183 I do not have very high goals for myself

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q184 My parent rarely expected me to excel in all aspects of my life

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Q185 I respect people who are average

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree

☐ 1 Strongly disagree

☐

Q186 People expect nothing less than perfection from me

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree)

Q187 I set very high standards for myself

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q188 People expect more from me than I am capable of giving

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q189 I must always be successful at school or work

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q190 It does not matter to me when a close friend does not try their hardest

☐ 7 Strongly agree

☐ 6 Agree

☐ 5 Somewhat agree

☐ 4 Neither agree nor disagree

☐ 3 Somewhat disagree

☐ 2 Disagree

☐ 1 Strongly disagree

Q191 People around me think I am still competent even if I make a mistake

- ☐ 7 Strongly agree
- ☐ 6 agree
- ☐ 5 somewhat agree
- ☐ 4 neither agree nor disagree
- ☐ 3 somewhat disagree
- ☐ 2 disagree
- ☐ 1 strongly agree

Q192 I seldom expect others to excel at whatever they do

- ☐ 7 Strongly agree
- ☐ 6 Agree
- ☐ 5 Somewhat agree
- ☐ 4 Neither agree nor disagree
- ☐ 3 Somewhat disagree
- ☐ 2 Disagree
- ☐ 1 Strongly disagree

Page Break

Q193 For the following statements, please rate the truth of each statement as it applies to you.

I get on with my life even when I feel bad about my body

- ☐ Always true (7)
- ☐ Almost always true (6)
- ☐ Frequently true (5)
- ☐ Sometimes true (4)
- ☐ Seldom true (3)
- ☐ Very seldom true (2)
- ☐ Never true (1)

Q194 Worrying about my weight makes it difficult for me to live a life that I value

- ☐ Always true (7)
- ☐ Almost always true (6)
- ☐ (Frequently true (5)
- ☐ Sometimes true (4)
- ☐ Seldom true (3)
- ☐ Very seldom true (2)
- ☐ Never true (1)

Q195 I would gladly sacrifice important things in my life to be able to stop worrying about my weight

- ☐ 7 Always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true

☐ 1 never true

Q196 I care too much about my weight and body shape

☐ 7 Always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q197 How I feel about my body has very little to do with the daily choices I make

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q198 Many things are more important to me than feeling better about my weight

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q199 There are many things I do to try and stop feeling bad about my body weight and shape

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q200 I worry about not being able to control bad feelings about my body

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q201 I do not need to feel better about my body before doing things that are important to me

☐ 7 always true

☐ 6 almost always true

- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q202 I dont do things that might make me feel fat

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true
- ☐

Q203 I shut down when I feel bad about my body shape or weight

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q204 My worries about my weight do not get in the way of my success

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q205 I can move toward important goals, even when feeling bad about my body

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q206 There are things I do to distract myself from thinking about my body shape or size

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true

☐ 1 never true

Q207 My thoughts and feelings about my body weight and shape must change before I can take important steps in my life

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q208 My thoughts about my body shape and weight do not interfere with the way I want to live

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q209 I cannot stand feeling fat

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q210 Worrying about my body takes up too much of my time

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q211 If I start to feel fat, I try to think about something else

☐ always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q212 Worrying about my weight does not get in my way

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q213 Before I can make any serious plans, I have to feel better about my body

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q214 I will have better control over my life if I can control my negative thoughts about my body

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true

Q215 I avoid putting myself in situations where I might feel bad about my body

☐ 7 always true

- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q216 To control my life, I need to control my weight

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true)
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q217 My worries and fears about my weight are true

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q218 Feeling fat causes problems in my life

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q219 I do things to control my weight so I can stop worrying about the way my body looks

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true
- ☐ 1 never true

Q220 When I start thinking about the size and shape of my body, it's hard to do anything else

- ☐ 7 always true
- ☐ 6 almost always true
- ☐ 5 frequently true
- ☐ 4 sometimes true
- ☐ 3 seldom true
- ☐ 2 very seldom true

☐ 1 never true

Q221 My relationships would be better if my body weight and/or shape did not bother me

☐ 7 always true

☐ 6 almost always true

☐ 5 frequently true

☐ 4 sometimes true

☐ 3 seldom true

☐ 2 very seldom true

☐ 1 never true



Office of Research Integrity
Institutional Review Board (IRB)
2000 University Avenue
Muncie, IN 47306-0155
Phone: 765-285-5052
E-mail: orihelp@bsu.edu

DATE: February 12, 2020

TO: Annika Pairitz, BS Psychology 2020

FROM: Ball State University IRB

RE: IRB protocol # 1524793-1

TITLE: Predictive Factors of Eating Disorders in Collegiate Female Dancers

SUBMISSION TYPE: New Project

BOARD DECISION: APPROVED

PROJECT STATUS: ACTIVE

DECISION DATE: February 12, 2020

REVIEW TYPE: **Expedited:** This protocol had been determined by the board to meet the definition of minimal risk.

The Institutional Review Board has approved your New Project for the above protocol, effective on February 12, 2020. Your project falls into the Expedited Category indicated below. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an expedited study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record. All research under this protocol must be conducted in accordance with the approved submission and in accordance with the principles of the Belmont Report.

Your project falls under the indicated Expedited Categories:

	Category 1: Clinical studies of drugs and medical devices
	Category 2: Collection of blood samples by Finger stick, Heel stick, Ear stick, or Venipuncture
	Category 3: Prospective collection of biological specimens for research purposes by noninvasive means
	Category 4: Collection of data through Non-Invasive Procedures Routinely Employed in Clinical Practice, excluding procedures involving Material (Data, Documents, Records, or Specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis)
	Category 5: Research involving materials that have been collected or will be collected solely for non-research purposes.

	Category 6: Collection of Data from Voice, Video, Digital, or Image Recordings Made for Research Purposes
X	Category 7: Research on Individual or Group Characteristics or Behavior or Research Employing Survey, Interview Oral History, Focus Group, Program Evaluation, Human Factors, Evaluation, or Quality Assurance Methodologies
	Category 8: Continuing review of research previously approved by the convened IRB
	Category 9: Continuing review of research, not conducted under an investigational new drug application or investigational device exemption where categories 2-8 do not apply but the IRB has determined and documented at a convened meeting that the research involves no greater than minimal risk and not additional risks have been identified.

Categories where the IRB has decided to downgrade protocol to Expedited review:

	Category 1: Continuing review of research previously approved by the convened IRB, where research activities are limited to data analysis only.
	Category 2: Continuing review of research, not conducted under an investigational new drug application or investigational device exemption where categories two (2) through eight (8) research involves no greater than minimal risk and no additional risks have been identified.
	Category 3: Protocol modifications have resulted in the protocol becoming minimal risk and qualifying for Expedited review.

Editorial Notes:

Approved

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. Any of these notifications must be addressed in writing and submitted electronically to IRBNet (www.irbnet.org). Please reference your IRB protocol number 1524793-1 in any communication to the IRB regarding this project. Be sure to allow sufficient time for review and approval of requests for modification or continuation. If you have questions, please contact Sandra Currie at (765) 285-5052 or slcurrie@bsu.edu.

In the case of an adverse event and/or unanticipated problem, you will need to submit written documentation of the event to IRBNet under this protocol number and you will need to directly notify the Office of Research Integrity (<http://www.bsu.edu/irb>) **within 5 business days**. If you have questions, please contact Sandra Currie at (765) 285-5052 or slcurrie@bsu.edu.

Please note that all research records must be retained for a minimum of three years after the completion of the project or as required under Federal and/or State regulations (ex. HIPAA, FERPA, etc.). Additional requirements may apply.